BOOK 2

EVS

SWANIRVAR
Estd:
Andhar Mank

SKM-105

ONE EARTH

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Alone in space, alone in life-supporting systems, powered by inconceivable energies, mediating them to us through the most delicate adjustments, wayward, unlikely, unpredictable, but nourishing, enlivening, and enriching in the largest degree—is this not a precious home for all of us earthlings? Is it not worth our love? Does it not deserve all the inventiveness and courage and generosity of which we are capable to preserve it from degradation and destruction and, by doing so, to secure our own survival?

— Barbara Ward and Rene Dubos

SIKSHA MITRA
(Learning Centre)
Supported by : Swanirbhar

Activity 1

SWAYAMVAR Estd: Andharmanik

ONE EARTH

What do you see when you look up at the sky? Birds, clouds and higher still, the sun. It doesn't look very big because it is so far away. What do you see if you look at the sky at night? Stars and the moon. The moon *looks* almost as big as the sun, but it is much,much smaller. It only looks big because it is close to us.

Imagine you are standing on the moon and looking up at the sky. What would you see? The sun and the stars, and something you have not seen before: the planet Earth.

Look at the picture of the Earth rise from the moon. The Earth is bigger than the moon. How else is it different? There are clouds and lots of water. And there is land. There is something else that is different but it can't be seen. This planet is the home of people. We are too tiny to be seen from so very far away. We live on this planet, mostly in the green areas where there are growing plants to eat. A few of us have also found ways to live in places which are mostly rocks and sand, or where it is so cold that the ground is always white with snow. Turning, tipping, our Earth is carrying us slowly around and around the sun.

Introduce the idea of One Earth to help children see the world as a whole and to feel a part of the human family. Discuss how different countries and cultures are linked together—by trade, travel, television, the United Nations etc.

Adapted from:

World Concerns and the United Nations
U.N., New York.

Activity 2

Ball of Wonder

If the Earth
were only a few feet in
diameter, floating a few feet above
a field somewhere, people would come
from everywhere to marvel at it. People would
walk around it, marvelling at its big pools of water,
its little pools and the water flowing between the pools.
People would marvel at the bumps on it, and the holes
in it, and they would marvel at the very thin layer of gas
surrounding it and the water suspended in the gas. The
people would marvel at all the creatures walking around the
surface of the ball, and at the creatures in the water. The
people would declare it precious because it was the only
one, and they would protect it so that it would not be hurt.
The ball would be the greatest wonder known, and people
would come to behold it, to be healed, to gain knowledge,
to know beauty and to wonder how it could be.
People would love it, and defend it with their lives,
because they would somehow know that their
lives, their own roundness, could be
nothing without it. If the Earth
were only a few feet
in diameter.

"If the Earth were a ball of wonder..." Draw or paint a picture to illustrate this theme. Use your imagination — like this, for example :

—ideas and action
FAO, Rome

Activity 3

Sounds Overhead !

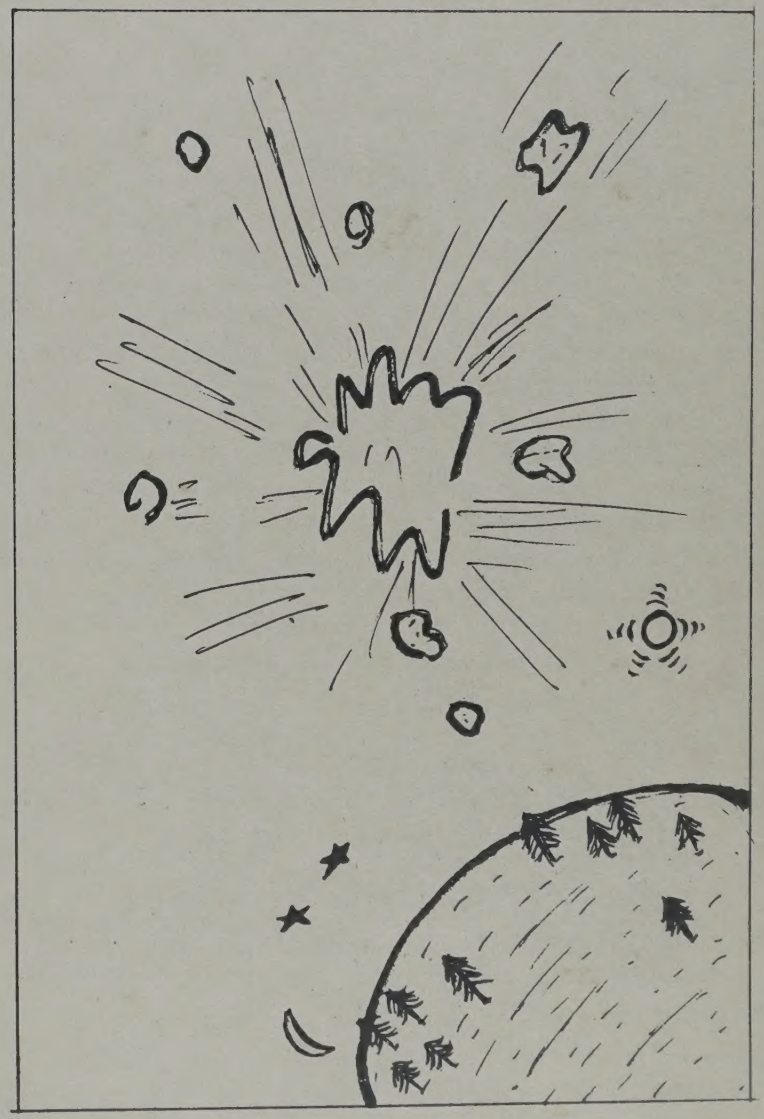
During the last 24 hours did you look at the sky ? Even if you cannot hear the meteorites overhead, you can watch the sky change colour through the day, and through the seasons. Look at the sky, after a rain, or on a clear night. Draw or write about what you see.

A visit to a planetarium is a good way to feel the wonder of the skies. There are planetaria at Calcutta, Delhi and Bangalore. You can also look at the night sky through powerful telescopes, such as at the State Observatory at Nainital.

—Lewis Thomas
The Lives of a Cell, Notes of a Biology Watcher
Futura Publications Ltd.

Only by sharing our deeper thoughts and feelings do we communicate to, and inspire in others, a love and respect for the earth.

— Joseph Bharat Cornell



Activity 4

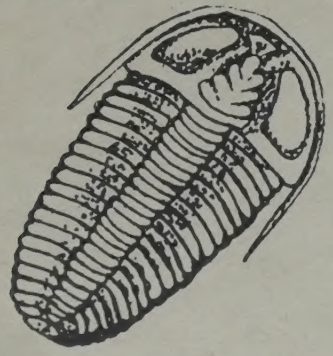
A Grain of Sand

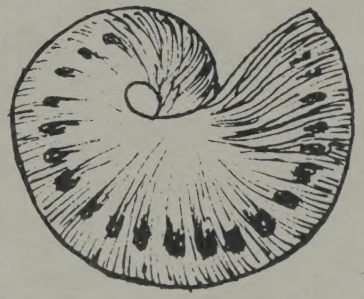
To be able to read any language, Hindi or Urdu or English, you have to learn its alphabet. So also you must learn the alphabet of nature before you can read her story in her books of stone and rock. Even now perhaps you know a little how to read this. If you see a little round shiny pebble, does it not tell you something? How did it get round and smooth and shiny without any corners or rough edges? If you break a big rock into small bits, each bit is rough and has corners and rough edges. It is not at all like a round smooth pebble. How then did the pebble become so round and smooth and shiny? It will tell you its story if you have good eyes to see and ears to hear it. It tells you that once upon a time, it may be long ago, it was a bit of rock, just like the bit you may break from a big rock or stone, with plenty of edges and corners. Probably it rested on some mountain side. Then came the rain and washed it down to the little valley where it found a mountain stream which pushed it on and on till it reached a little river. And the little river took it to the big river. And all the while it rolled at the bottom of the river and its edges were worn away and its rough surface made smooth and shiny. So it became the pebble that you see. Somehow the river left it behind and you found it. If the river had carried it on, it would have become smaller till at last it became a grain of sand and joined its brothers at the seaside to make a beautiful beach where little children can play and make castles out of the sand.

If a little pebble can tell you so much, how much more could we learn from all the rocks and mountains and the many other things we see around us?

— *Jawaharlal Nehru*

The story of the Earth can be read in fossils—these are the remains or impressions of prehistoric plants or animals which have been preserved in the layers of the Earth.





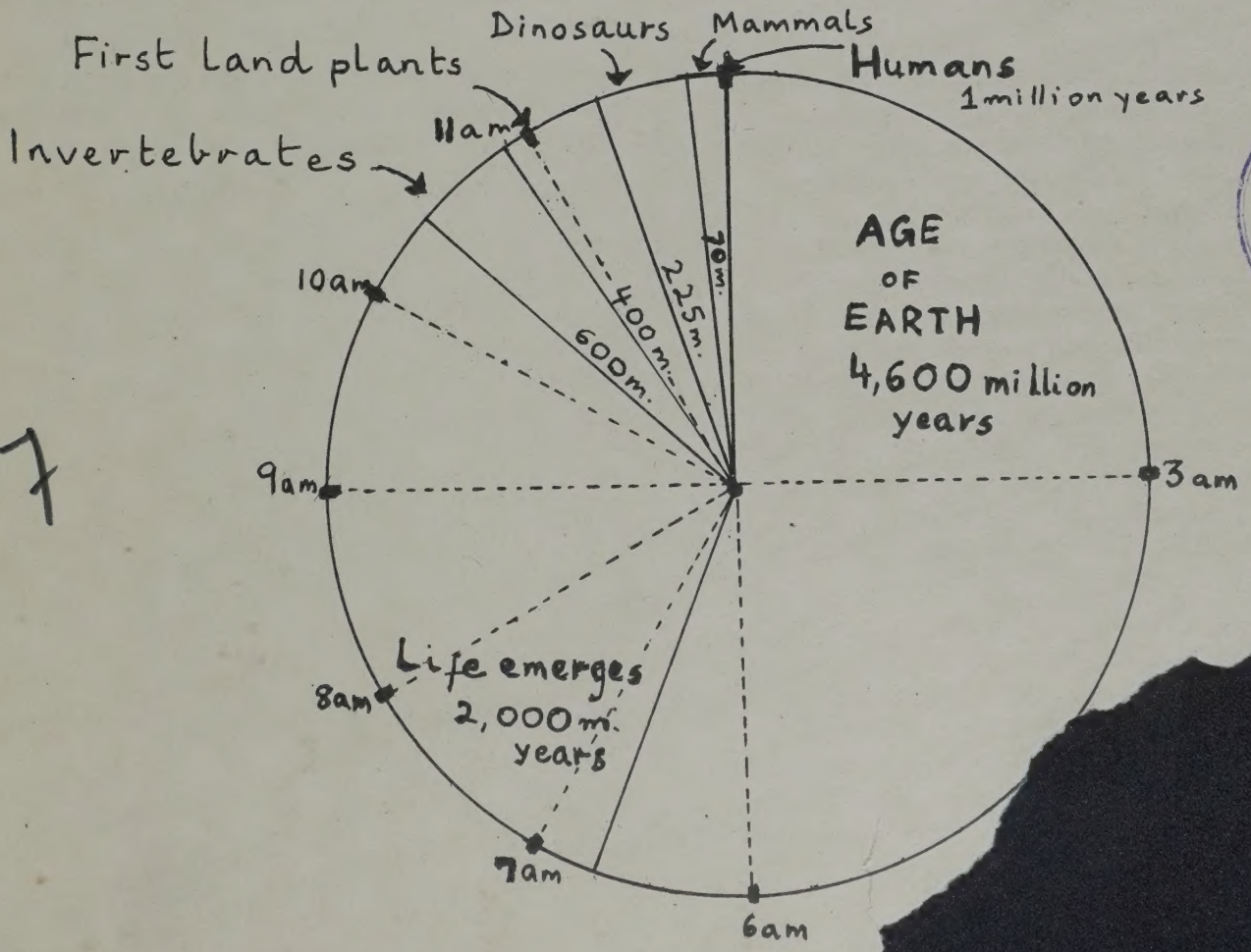
Nature has many hidden stories. Encourage children to discover and write these.

Activity 5

Earth Time

The Earth is 4.6 billion years old. A billion is equal to 1,000 million. So, the Earth is very, very old. But for a long time there were no human beings living on it. How long have humans been on Earth? Suppose the 12 hours of this clock face represent the entire history of the Earth from 4.6 billion years ago till today. It is only in the last half hour that mammals appeared, and human beings only in the last quarter second.

Help children to understand the fact that human beings have been on the Earth for a very brief time, by looking at (or drawing) graphs of different geological periods. Discuss the concept of age. Are human beings "old"?



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Activity 6

How to Use your Eyes

Now and then I have tested my seeing friends to discover what they see. Recently I was visited by a very good friend who had just returned from a long walk in the woods, and I asked her what she had observed. 'Nothing in particular', she replied. I might have been incredulous had I not been accustomed to such responses, for long ago I became convinced that the seeing see little.

How was it possible, I asked myself, to walk for an hour through the woods and see nothing worthy of note? I who cannot see, find hundreds of things to interest me through mere touch. I pass my hands lovingly about the smooth skin of a silver birch, or the rough shaggy bark of a pine, In spring I touch the branches of trees hopefully in search of a bud. I feel the delightful, velvety texture of a flower, and discover its remarkable convolutions; and something of the miracle of nature is revealed to me. Occasionally, if I am very fortunate, I place my hand gently on a small tree and feel the happy quiver of a bird in full song. I am delighted to have the cool waters of a brook rush through my open fingers. To me a lush carpet of pine needles or spongy grass is more welcome than the most luxurious Persian rug. To me the pageant of seasons is a thrilling and unending drama, the action of which streams through my finger tips.

[redacted]heart cries out with longing to see all these things. [redacted]h pleasure from mere touch, how much [redacted]d by sight! Yet, those who have [redacted]ama of colour and action [redacted]granted. It is human, [redacted] we have and to long [redacted]reat pity that in the world of light, the gift of sight is used only as a mere convenience rather than as a means of adding fullness to life.

If I were the president of a university I should establish a compulsory course in 'How to Use Your Eyes'. The professor would try to show his pupils how they could add joy to their lives by really seeing what passes unnoticed before them.

— Helen Keller

Read this passage. Then form groups, and let each group list the topics that could be included in a course on "How to Use Your Eyes". Compare and discuss the lists.

Helen Keller, a well known American writer, was born blind and deaf.

Activity 7

A Perfume Shop?

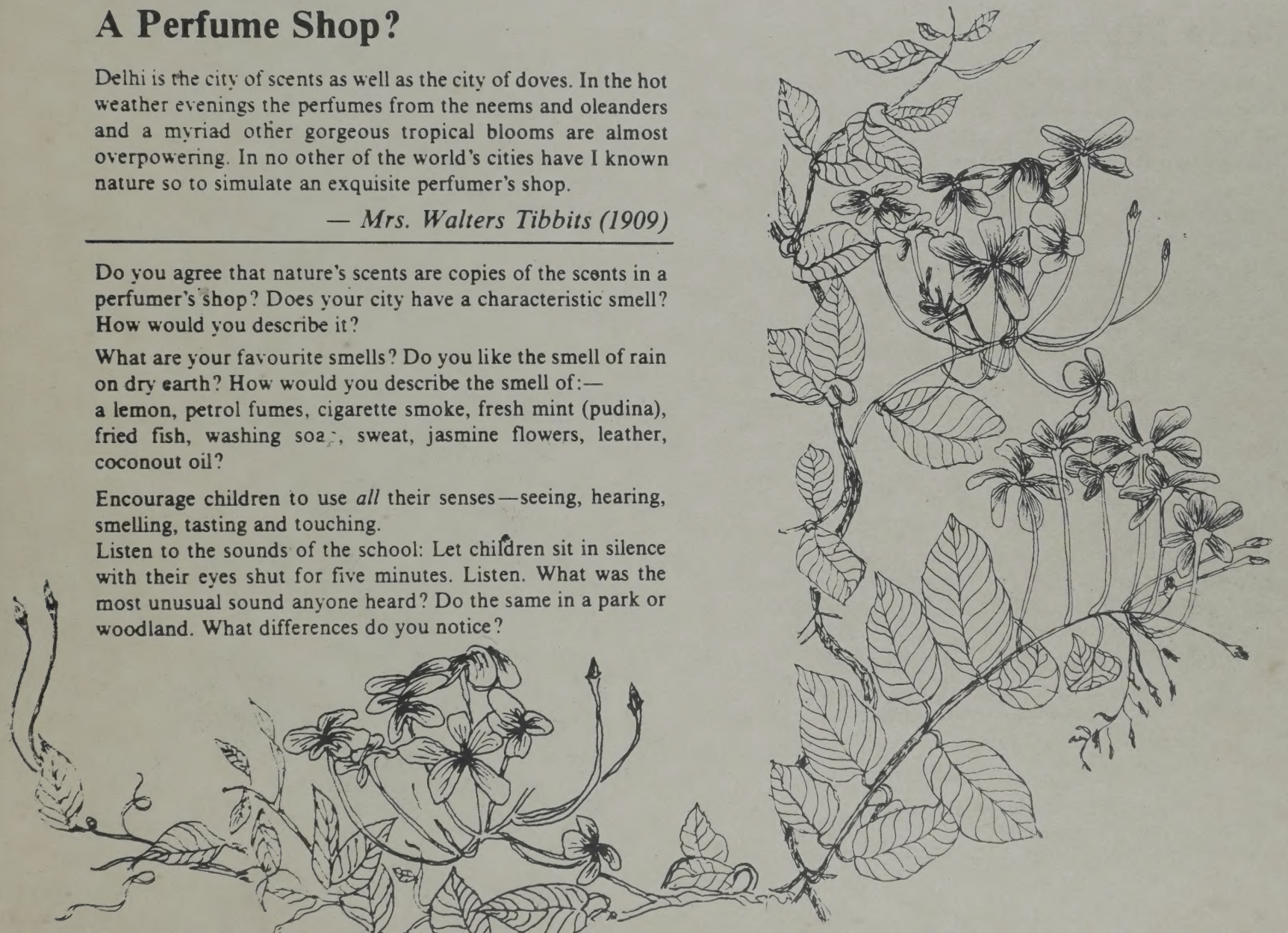
Delhi is the city of scents as well as the city of doves. In the hot weather evenings the perfumes from the neems and oleanders and a myriad other gorgeous tropical blooms are almost overpowering. In no other of the world's cities have I known nature so to simulate an exquisite perfumer's shop.

— Mrs. Walters Tibbits (1909)

Do you agree that nature's scents are copies of the scents in a perfumer's shop? Does your city have a characteristic smell? How would you describe it?

What are your favourite smells? Do you like the smell of rain on dry earth? How would you describe the smell of:—
a lemon, petrol fumes, cigarette smoke, fresh mint (pudina), fried fish, washing soap, sweat, jasmine flowers, leather, coconout oil?

Encourage children to use *all* their senses—seeing, hearing, smelling, tasting and touching.
Listen to the sounds of the school: Let children sit in silence with their eyes shut for five minutes. Listen. What was the most unusual sound anyone heard? Do the same in a park or woodland. What differences do you notice?

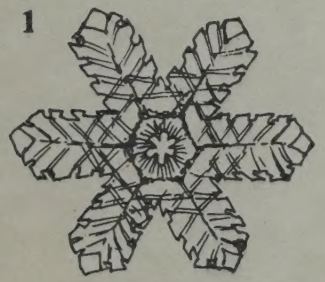


Activity 8

What is This?

It is easy to forget that we humans share our planet with thousands of other kinds of things. Some of these we do not notice; others are not even visible to the naked eye.

1



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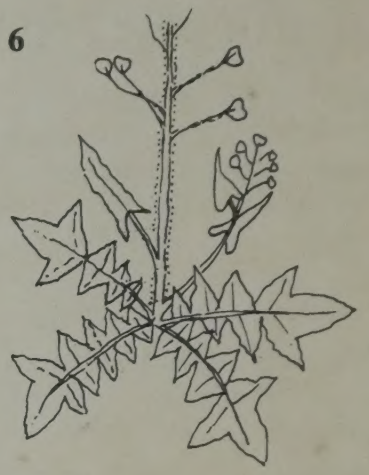

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Ans.
1. Snowflake 2. parts of a sponge skeleton (spicule) 3. Dandelion
4 Diatom 5. Snowflake 6. Shepherd's purse 7. Algae.

Activity 9

Heave Ho ! (Hai Shah !)

The cartoon shows draught animals which are used to do all kinds of work carry, pull, push.

Collect or draw pictures of animals at work in different places.

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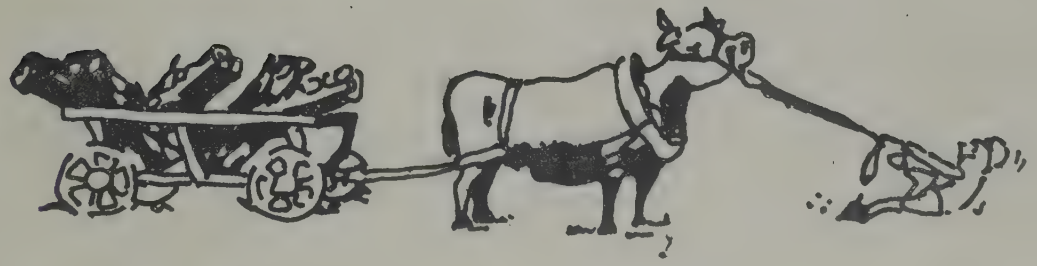

Milch animals produce milk; draught animals provide energy.

Ask children to role play and get into the mood, qualities and behaviours of these animals and enact their feeling

Activity 10

Cactus Flower

Arid deserts are not, of course, devoid of life. But the plants and animals are adapted to the climate in which they must survive.

If you were a flower on the giant cactus in the Mexican desert imagine what life would be like. Write your story.

Activity 11

Can you Buy the Sky?

The Great Chief in Washington sends word that he wishes to buy our land. The Great Chief also sends us words of friendship and goodwill. This is kind of him, since we know he has little need of our friendship in return. For we know that if we do not sell, the white man may come with guns and take our land.

How can you buy or sell the sky, the warmth of the land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them?

Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing, and every humming insect is holy in the memory and experience of my people. The sap which courses through the trees carries the memories of the red man. The white man's dead forget the country of their birth when they go to walk among the stars. Our dead never forget this beautiful earth, for it is the mother of the red man. We are part of the earth and it is part of us. The perfumed flowers are our sisters; the deer, the horse, the great eagle, these are our brothers. The rocky crests, the juices in the meadows, the body heat of the pony, and man—all belong to the same family.

So, when the great Chief in Washington sends word that he wishes to buy our land, he asks much of us. The Great Chief sends word that he will reserve us a place so that we can live comfortably to ourselves. He will be our father and we will be his children. So we will consider your offer to buy our land. But it will not be easy. For this land is sacred to us.

This shining water that moves in the streams and rivers is not just water but the blood of our ancestors. The water's murmur is the voice of my father's father. The rivers are our brothers; they quench our thirst. The rivers carry our canoes, and feed our children. If we sell you our land, you must remember, and teach your children that the rivers are our brothers, and yours, and you must henceforth give the rivers the kindness you would give any brother

The red man has always retreated before the advancing white man, as the mist of the mountain runs before the morning sun. But the ashes of our fathers are sacred. Their graves are holy ground, and so these hills, these trees, this portion of the earth is consecrated to us. We know that the white man does not understand our ways. One portion of land is the same to him as the next, for he is a stranger who comes in the night and takes from the land whatever he needs. The earth is not his brother, but his enemy; when he has conquered it, he moves on. He leaves his fathers' graves behind, and he does not care. He treats his mother, the earth, and his brother, the sky, as things to be bought, plundered, sold like sheep or bright beads. His appetite will devour the earth and leave behind only a desert.

This is part of a speech delivered by Chief Seattle, an American Indian ("red man") in 1854.

Make a list of all the things that Chief Seattle's people hold sacred. Then list all the things that your family holds sacred. How do the lists differ ? Think about the differences.

Activity 12

Happy Future?

This poster, depicts two alternative future prospects. Which do you think is the more likely prospect? Which do you think the girl visualises as the happy prospect?

Make an Environment poster on any issue of your choice, which could be used in a campaign in your own neighbourhood. Remember that a poster is not just a drawing, but combines art and writing to convey a message such as: Let's keep our school clean or Don't Waste Water.

Posters are excellent campaign material. Encourage children individually or in groups to draw posters on specific themes. Look for original ideas and a balance between the drawing and writing.

Nobody made a greater mistake than he who did nothing because he could only do a little.

— Edmund Burke

Poster by Rita Lutz, 12 years, Australia/UNEP

SUBJECT WISE KEY TO ACTIVITIES

ACTIVITY NUMBERS

Shikshamitra
EDUCATION RESOURCE CENTRE
62B, Alipore Road, Kolkata -700027
Ph: 2479 9271

RETURN DATE SLIP

DUE DATE	DUE DATE	DUE DATE

SCIENCE	HISTORY	CIVICS	GEO-GRAPHY	MATHS	GAMES & QUIZ	SPECIAL PROJECTS
5,7,8,10			1,3,4,5		8	10
1,2,3,4, 5,6,7,8, 9,10,11			12	9	3,5,8,9	12
3,4,5,6, 7,7a	5	3	2,4,5,6 8,9,10,11		2,10	12
3,4,5,8 10	4,12	6,7,9,10	6,7	5	11	
2,3,5,7 9,10,12		11			5	12
6,7,2	1,4,9,10	3,5,8 10,11,12	1,9	3,8	12	11
3,4,5,6 10,11		2		4	4	11,12
6,8,10,11		3,5,6	4	9	8,12	
5,6,8,9 10,11,12						

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